WORLDWIDE SMART GRID MARKET SET FOR HUGE GROWTH

New Wavelet OFDM Technology Selected as Global Standard

Since late September 2010, there has been an international consensus on the future of broadband over power line (BPL) communications technology. The largest professional technology association in the world, the IEEE, has formally approved the 1901 standard for high speed data communications over electricity networks. This marks a significant turning point for the market and represents the key business driver for high volume global penetration.

As with other technologies such as Wi-Fi, 3G and Ethernet, it is not until the adoption of a worldwide standard that consumers and vendors alike have the confidence to get behind a particular solution – but once a standard is approved volume is accelerated and demand grows quickly, all of which lead to rapid industry growth and increased consumer satisfaction.

Swiss Company, ACN Advanced Communications Networks SA, is proud to be technology leader in this hugely promising marketplace, having developed the Wavelet OFDM solution at the core of the IEEE 1901 standard. This has been achieved with endorsement of the HD-PLC (High Definition Power Line Communication) Alliance and in particular Panasonic, who have provided a baseband solution for the indoor network. ACN's flexible bandpass technology is suited for both indoor networks, and the challenges of long distance communication over medium voltage lines as required in the Smart Grid.

Electricity Distribution Grid in Klagenfurt

Popular Solar Power

ACN's patent protected Wavelet OFDM communications technology offers unsurpassed reliability and robustness for communications over even the most difficult of channels. More importantly, the main objection to PLC networks, namely unwanted radio emissions in licensed bands, has been overcome by our sophisticated spectral sculpting algorithms. In addition, thanks to the flexibility of our solution, we can deliver data-rates up to 500 Mbps for peak-loads or as low as 100 kbps for meter reading and kbps command-control applications.

By making the Power Grid intelligent (Smart Grid), large savings may be provided to utilities around the world and the Grid may be

made more reliable by preventing blackouts and enabling better load balancing. In fact, a key component of the US economic stimulus policy has been the investment of $8.1 billion in Smart Grid and Smart Metering technologies. This trend has been reflected in economic and energy policies throughout the world, with an estimated $9 billion investment this year by Japan, South Korea and China, leading to an estimated $200 billion in cumulative spending on Smart Grid technology worldwide by 2015. China alone is estimated to spend $10 billion a year for the next ten years on deploying Smart Grid.

Smart Grid is also a crucial component of environmental policy given the potential to reduce greenhouse gas emissions through energy savings. Now that the communications standard to enable the Smart Grid has been approved, broadband over power line (BPL) communications technology is set to demonstrate that its moment has come.

Consequently, ACN will introduce two different market offerings in 2011: Smart Grid Communication Gateways allowing broadband data communications over the medium and low voltage lines and Communication Modules for Smart Meters. Smart Meters will then be able to provide information to customers and utilities about their present power consumption and give them the means to control this power consumption in real-time. ACN is well placed to play a leading role in this industry as it has demonstrated its capability to deliver requisite enabling technology.

Wind Power, © Suisse Eole

ACN's new equipment will address the communication needs of the Smart Grid, including the need to integrate renewable energy sources such as wind power and solar power. Renewable power sources will play an increasingly important role in the future. BPL communication is needed for the management of these resources and allows energy to be delivered far more efficiently than is currently possible.

The Smart Grid market in general, and ACN in particular, offer a superb investment opportunity at this time of limited equity returns and low interest rates, thanks to the new regulatory framework of IEEE 1901, and emerging environmental mandates for green energy such as those stipulated by the Kyoto protocol. For more information on how you can participate in the returns being generated in this industry, give us a call at the number below.

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